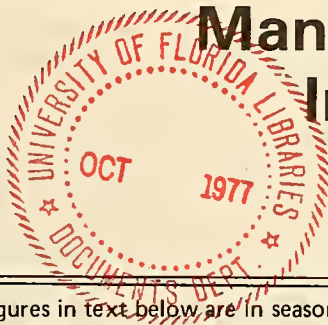




U.S. Department of Commerce
BUREAU OF THE CENSUS



Manufacturers' Shipments, Inventories, and Orders

JULY 1977

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All figures in text below are in seasonally adjusted current dollars.

New orders for manufactured products in July declined by \$3.3 billion or 3 percent to \$108.4 billion the Department of Commerce, Bureau of the Census reported today. New orders for durable goods fell \$3.0 billion or 5 percent to \$55.6 billion with most of the decline occurring in the transportation equipment industries (\$2.5 billion or 17 percent). Excluding the transportation industries, new orders for all manufactured products declined \$0.9 billion or 1 percent. New orders for nondurable goods industries decreased by \$0.3 billion or less than 1 percent to \$52.8 billion.

In the transportation industries, several factors contributed to the decline. After a major increase in June, new orders for commercial complete aircraft declined to more average levels. New orders for military aircraft showed a major decline for the third consecutive month (new orders as published in this report represent all new orders received less cancellations of existing orders). This decline, as well as declines in other industries, may have been affected by the change in the Federal Government's fiscal year.

Beginning in 1976, the fiscal year was changed from a July 1-June 30 basis to an October 1-September 30 basis. This change in the Government's fiscal year probably affected the awarding of contracts and other financial arrangements. Although the impact of this change is not known, the use of the previously established seasonal patterns would have substantially distorted the current data since these seasonal factors reflect historical Government purchasing patterns. Therefore, new composite factors were developed by combining existing end of fiscal year information with data for the previous calendar quarter (i.e., one quarter preceding the end of the fiscal year). These composite factors were applied to the unfilled orders data for each of the separately tabulated defense industries. This adjustment also modified the new orders data. Similar adjustments could not be made for nondefense Government orders since such data are not compiled separately. The use of these factors raised the level of new orders received by the defense capital goods industries although the estimate is \$0.2 billion or 11 percent below June.

Another factor affecting the new orders level is the estimate for the motor vehicle and assembly industry where new orders are defined as being equal to shipments since unfilled order backlogs are not maintained. The derivation of the shipments data and consequently the new orders information is explained in the footnote in Table 1.

Shipments of all manufacturing products declined by \$1.4 billion or 1 percent to \$109.5 billion. Durable goods fell by \$1.1 billion or 2 percent to \$56.7 billion with declines in

transportation industries (\$0.6 billion), fabricated metals products (\$0.4 billion) and primary metals industries (\$0.3 billion) accounting for virtually all of the decline. Shipments of nondurable goods industries fell \$0.3 billion to \$52.8 billion with a \$0.6 billion decline in the chemical industries being partially offset by increases in petroleum and coal products.

Reflecting the decreases in the transportation equipment and machinery industries, new orders for the nondefense capital goods industries decreased by \$1.5 billion or 10 percent to \$14.2 billion. With the decline in new orders and a small increase in shipments (\$0.4 billion), the backlog of unfilled orders for the nondefense capital goods industries declined by \$0.4 billion or 0.5 percent to \$81.8 billion.

Unfilled orders for all manufacturing industries declined \$1.1 billion or 0.6 percent to \$182.0 billion. Excluding transportation, unfilled orders for all manufacturing industries showed a slight decline of \$0.1 billion or 0.1 percent. The transportation equipment industries registered a \$1.0 billion or 2 percent decline to \$55.3 billion. The majority of this decline occurred in the aircraft and parts industries (\$0.7 billion) and shipbuilding and military tank vehicles industries (\$0.2 billion).

Inventories held by manufacturers rose \$1.0 billion or less than 1 percent to \$174.8 billion in July with most of the rise (\$0.8 billion) in the work in process portion of the inventories. Over two-thirds of the total inventory increase was reflected in the \$0.6 billion rise in the inventories held by durable goods producers. Inventories held by producers of fabricated metal products increased 2 percent or \$0.2 billion to \$13.7 billion and those held by producers of primary metal products increased 1 percent or \$0.1 billion to \$17.8 billion. The shipments for both these industries declined. Inventories held by producers of nondurable goods increased by \$0.3 billion or less than 1 percent to \$63.7 billion with increases reflected in the chemical (\$0.3 billion) and petroleum and coal products industries (\$0.2 billion) being partially offset by decreases reported by the foods industries (\$0.3 billion).

SCHEDULED RELEASE DATES

The figures on the durable goods industries in this report supersede those issued earlier in the advance report on durable goods. The present report is based on more complete reporting, but the estimates are also considered preliminary. Final figures will appear as historical data in the report to be published for next month. The advance report on durable goods for August is scheduled for release on September 22, 1977 and the full report is scheduled for release on October 3, 1977.

Address inquiries concerning these figures to U.S. Department of Commerce, Bureau of the Census, Industry Division, Washington, D.C. 20233, or call William Menth, (301) 763-2502.

For sale by the Subscriber Services Section (Publications), Bureau of the Census, Washington, D.C. 20233, or any U.S. Department of Commerce district office. Postage stamps not acceptable; currency submitted at sender's risk. Remittances from foreign countries must be by international money order or by a draft on a U.S. bank. Price 30 cents per copy, \$3.60 per year.

Table 1.--VALUE OF MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS, BY INDUSTRY GROUP

(Millions of dollars)

Industry group	Shipments						Total inventories					
	Seasonally adjusted			Without seasonal adjustment ¹			Seasonally adjusted			Without seasonal adjustment ¹		
	July 1977 ^P	June 1977 ^R	May 1977	July 1977 ^P	June 1977 ^R	May 1977	July 1977 ^P	June 1977 ^R	May 1977	July 1977 ^P	June 1977 ^R	May 1977
All manufacturing industries:												
Total.....	109,494	110,884	109,458	102,898	116,861	110,762	174,772	173,818	172,629	173,117	173,022	173,087
Total, excluding transportation.....	96,265	97,022	96,133	90,615	101,706	96,576	154,354	153,448	152,894	153,395	153,279	153,578
Total for industries with unfilled orders...	56,666	57,012	56,431	52,025	60,790	57,072	116,708	115,954	114,571	116,002	115,972	119,244
Durable goods industries, total.	56,654	57,774	56,717	52,636	62,574	58,405	111,058	110,421	109,154	110,199	110,229	109,925
Durable goods with unfilled orders.....	44,889	45,261	44,723	41,108	48,733	45,531	102,034	101,444	100,109	101,148	101,188	104,543
Stone, clay, and glass products.	2,920	3,010	2,860	2,869	3,249	2,991	4,343	4,251	4,258	4,389	4,318	4,355
Primary metals, total.....	8,124	8,428	8,296	7,438	9,070	8,661	17,756	17,645	17,584	17,633	17,645	17,615
Blast furnaces, steel mills.	4,258	4,471	4,244	3,892	4,735	4,384	10,557	10,500	10,444	10,389	10,395	10,381
Nonferrous and other primary metals.....	2,963	3,050	3,169	2,735	3,337	3,334	6,195	6,150	6,159	6,251	6,230	6,209
Fabricated metal products total.....	7,074	7,461	7,253	6,693	7,924	7,397	13,694	13,472	13,396	13,804	13,624	13,613
Metal cans, barrels, and drums.....	626	688	659	712	766	669	1,293	1,249	1,264	1,349	1,339	1,363
Machinery, except electrical, total.....	10,198	9,920	10,060	9,291	10,911	10,096	24,998	24,871	24,566	24,794	24,910	24,852
Engines and turbines.....	987	810	829	772	911	855	2,132	2,182	2,110	2,110	2,150	2,108
Farm machinery and equipment.	816	842	880	693	934	933	2,442	2,361	2,356	2,413	2,380	2,410
Construction, mining, and material handling equipment.	1,840	1,821	1,877	1,776	1,994	1,902	5,368	5,364	5,346	5,293	5,364	5,415
Metalworking machinery.....	563	598	543	490	667	559	1,642	1,612	1,642	1,632	1,599	1,646
General industrial machinery	881	836	886	827	918	906	2,646	2,649	2,583	2,651	2,676	2,637
Electrical machinery, total...	6,854	6,753	6,555	6,195	7,166	6,493	15,328	15,343	15,088	15,278	15,439	15,333
Electrical transmission and distribution equipment and industrial apparatus.....	1,376	1,316	1,306	1,189	1,430	1,335	3,090	3,066	3,038	3,047	3,044	3,060
Household appliances.....	936	964	827	931	1,053	848	1,657	1,725	1,760	1,674	1,770	1,804
Radio and TV.....	489	511	495	392	521	404	874	854	805	906	888	863
Communication equipment.....	1,828	1,804	1,691	1,688	1,899	1,722	4,833	4,746	4,660	4,732	4,685	4,655
Transportation equipment, total ²	13,229	13,862	13,325	12,283	15,155	14,186	20,418	20,370	19,735	19,722	19,743	19,509
Motor vehicles and parts ² ...	9,152	9,712	9,074	8,379	10,606	9,711	7,065	7,191	6,624	6,592	6,853	6,485
Aircraft, missiles, and parts.....	2,615	2,732	2,866	2,463	2,937	2,915	10,455	10,317	10,318	10,281	10,105	10,236
Shipbuilding and military tank vehicles.....	636	608	580	608	659	617	1,391	1,357	1,349	1,363	1,314	1,330
Instruments and related products, total.....	2,323	2,324	2,321	2,139	2,452	2,295	4,845	4,735	4,785	4,879	4,811	4,846
Scientific and engineering..	1,399	1,352	1,395	1,276	1,437	1,388	3,079	3,009	3,002	3,073	3,033	3,023
Photographic goods.....	744	764	749	718	809	742	1,308	1,280	1,314	1,344	1,315	1,343
All other durable goods industries.....	5,932	6,016	6,047	5,728	6,647	6,286	9,676	9,734	9,742	9,700	9,739	9,802
Nondurable goods industries, total.....	52,840	53,110	52,741	50,262	54,287	52,357	63,714	63,397	63,475	62,918	62,793	63,162
Nondurable goods with unfilled orders.....	11,777	11,751	11,708	10,917	12,057	11,541	14,674	14,510	14,462	14,854	14,784	14,701
Food and kindred products, total.....	15,802	15,822	15,261	14,974	15,817	15,028	16,036	16,360	16,819	15,391	15,629	16,224
Meat products.....	3,869	3,985	3,986	3,788	3,933	3,942	1,390	1,366	1,406	1,358	1,389	1,425
Fats and oils.....	1,749	1,666	1,553	1,610	1,615	1,517	1,825	2,013	2,185	1,661	1,860	2,128
Tobacco products.....	671	695	709	684	738	723	3,635	3,596	3,582	3,257	3,380	3,485
Textile mill products.....	3,552	3,464	3,558	3,101	3,725	3,571	5,481	5,473	5,473	5,541	5,590	5,616
Paper and allied products, total.....	4,474	4,586	4,593	4,260	4,822	4,570	4,375	5,568	5,534	4,485	5,606	5,584
Pulp, paper, etc.....	1,997	2,008	2,060	1,936	2,086	2,069	2,138	2,101	2,091	2,131	2,125	2,120
Paperboard containers.....	954	1,039	1,027	915	1,074	1,035	1,472	1,477	1,470	1,489	1,487	1,471
All other paper containers..	1,523	1,539	1,506	1,409	1,662	1,466	2,012	1,990	1,973	2,021	1,994	1,993
Chemicals and allied products, total.....	8,938	9,554	9,364	8,457	9,807	9,783	13,595	13,306	13,152	13,521	13,228	13,115
Industrial chemicals, except pigments.....	2,957	3,451	3,039	2,978	3,344	3,227	4,032	3,905	3,892	3,975	3,874	3,865
Drugs, soap, and toiletries.	2,277	2,276	2,273	1,997	2,315	2,104	4,021	3,995	3,937	4,122	4,067	4,019
Petroleum and coal products...	8,115	7,921	8,159	8,160	8,131	8,055	5,712	5,546	5,467	5,730	5,529	5,444
Rubber and plastics products, n.e.c.....	2,996	3,120	3,116	2,798	3,294	3,142	4,154	4,104	4,087	4,117	4,115	4,111
All other nondurable goods industries.....	8,292	7,948	7,981	7,828	7,953	7,485	9,479	9,444	9,361	9,720	9,716	9,583

See footnotes at end of table.

Table 1.--VALUE OF MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS, BY INDUSTRY GROUP--Continued

(Millions of dollars)

Industry group	New orders						Unfilled orders					
	Seasonally adjusted			Without seasonal adjustment ¹			Seasonally adjusted			Without seasonal adjustment ¹		
	July 1977 ^P	June 1977 ^R	May 1977	July 1977 ^P	June 1977 ^R	May 1977	July 1977 ^P	June 1977 ^R	May 1977	July 1977 ^P	June 1977 ^R	May 1977
All manufacturing industries:												
Total.....	108,379	111,702	111,693	103,611	117,795	111,066	182,006	183,125	182,301	182,207	181,495	180,563
Total, excluding transportation.....	96,124	96,977	97,514	91,376	101,740	97,064	126,746	126,891	126,930	127,670	126,909	126,877
Total for industries with unfilled orders...	55,551	57,830	58,666	52,738	61,724	57,376	-	-	-	-	-	-
Durable goods industries, total.	55,552	58,556	59,176	53,262	63,571	58,899	173,727	174,834	174,047	173,644	173,019	172,024
Durable goods with unfilled orders.....	43,787	46,043	47,182	41,734	49,730	46,025	-	-	-	-	-	-
Primary metals, total.....	8,235	7,959	9,079	7,423	8,417	8,706	17,315	17,205	17,673	17,198	17,215	17,868
Blast furnaces, steel mills.	4,290	3,945	5,089	3,879	4,212	4,498	11,202	11,171	11,696	11,101	11,115	11,638
Nonferrous and other primary metal products.....	3,014	3,077	3,062	2,690	3,201	3,241	4,885	4,834	4,807	4,880	4,926	5,062
Fabricated metal products.....	6,874	7,236	7,337	6,701	7,982	7,439	23,151	23,353	23,577	23,400	23,391	23,334
Machinery, except electrical, total.....	10,230	10,572	10,143	9,463	11,454	10,129	44,898	44,869	44,215	45,042	44,869	44,326
Engines and turbines.....	1,064	858	802	849	918	688	16,210	16,135	16,086	16,275	16,197	16,189
Construction, mining, and material handling equipment.	1,756	1,829	1,836	1,753	2,034	1,943	6,247	6,332	6,324	6,366	6,389	6,349
Metalworking machinery.....	633	662	662	576	721	669	3,222	3,152	3,088	3,222	3,136	3,082
General industrial machinery.	856	1,080	849	776	1,027	836	6,792	6,816	6,572	6,649	6,700	6,592
Electrical machinery, total...	6,752	6,866	7,163	6,499	7,349	6,931	24,398	24,497	24,383	24,460	24,154	23,969
Electrical transmission and distribution equipment and industrial apparatus.....	1,304	1,216	1,319	1,211	1,311	1,331	5,869	5,941	6,041	5,912	5,890	6,010
Household appliances.....	958	966	840	968	1,063	857	363	341	339	379	342	332
Radio and TV.....	478	536	514	412	573	437	412	422	397	454	434	381
Communication equipment.....	1,838	1,855	2,183	1,847	1,977	2,011	11,577	11,566	11,514	11,385	11,226	11,147
Transportation equipment, total.....	12,255	14,725	14,179	12,235	16,055	14,002	55,260	56,234	55,371	54,537	54,586	53,686
Aircraft, missiles, and parts.....	1,915	3,814	3,421	2,528	3,795	2,777	37,322	38,022	36,941	36,608	36,542	35,686
Shipbuilding and military tank vehicles.....	461	386	652	422	648	390	8,905	9,080	9,301	8,956	9,142	9,152
All other durable goods industries.....	11,206	11,198	11,275	10,941	12,314	11,692	8,705	8,676	8,828	9,007	8,804	8,841
Nondurable goods industries, total.....	52,827	53,146	52,517	50,349	54,224	52,167	8,279	8,291	8,254	8,563	8,476	8,539
Industries with unfilled orders.....	11,764	11,787	11,484	11,004	11,994	11,351	8,279	8,291	8,254	8,563	8,476	8,539
Industries without unfilled orders.....	41,063	41,359	41,033	39,345	42,230	40,816	-	-	-	-	-	-

- Represents zero. ^PPreliminary. ^RRevised.¹Adjusted for trading-day and calendar-month variations.

²Motor vehicles and parts--During July, August, and September, motor vehicle assembly plants are closed down to allow for retooling for the forthcoming model year. Year-to-year variations in both the timing and duration of the model changeover period are sufficiently great that the normal seasonal adjustment procedures do not adequately identify the seasonality during the period and may introduce substantial erratic movements. To compensate for this, the estimated seasonally adjusted quarterly average is used for the seasonally adjusted data in each of the three months. The unadjusted data, however, are not subject to any special adjustments. This series accounts for about two-thirds of the published motor vehicles and parts shipments and about 40 percent of the published transportation equipment shipments.

Table 2.--VALUE OF MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS, FOR MARKET CATEGORIES AND SUPPLEMENTARY SERIES

(Millions of dollars)

Industry group	Seasonally adjusted			Without seasonal adjustment ¹			Seasonally adjusted			Without seasonal adjustment		
	July 1977 ^P	June 1977 ^T	May 1977	July 1977 ^P	June 1977 ^T	May 1977	July 1977 ^P	June 1977 ^T	May 1977	July 1977 ^P	June 1977 ^T	May 1977
	Shipments						Total inventories					
All manufacturing industries, total..	109,494	110,884	109,458	102,898	116,861	110,762	174,772	173,818	172,629	173,117	173,022	173,087
Durable goods industries, total.....	56,654	57,774	56,717	52,636	62,574	58,405	111,058	110,421	109,154	110,199	110,229	109,925
Nondurable goods industries, total.....	52,840	53,110	52,741	50,262	54,287	52,357	63,714	63,397	63,475	62,918	62,793	63,162
Industry groups arranged by market categories:												
Home goods and apparel.....	8,755	8,579	8,520	8,048	8,953	8,056	14,825	14,888	14,747	15,080	15,246	15,159
Consumer staples.....	19,343	19,510	19,041	18,347	19,637	18,693	23,883	23,943	24,137	23,151	23,256	23,619
Equipment and defense products, except automotive ³	15,031	14,736	14,935	13,922	16,145	15,094	40,704	40,267	39,855	40,309	40,137	40,160
Automotive equipment.....	10,854	11,490	10,940	10,109	12,659	11,690	9,192	9,363	8,777	8,709	9,018	8,657
Construction materials, supplies, and intermediate products.....	9,534	9,665	9,431	9,489	10,671	9,984	14,427	14,290	14,536	14,488	14,385	14,637
Other materials and supplies and intermediate products ³	45,977	46,904	46,591	42,983	48,796	47,245	71,741	71,067	70,577	71,380	70,980	70,855
Supplementary series: ²												
Household durable goods industries.....	3,446	3,631	3,422	3,051	3,818	3,354	7,533	7,565	7,494	7,612	7,691	7,693
Capital goods industries.....	17,153	16,785	16,934	15,764	18,264	17,044	45,461	45,206	44,671	44,989	44,990	44,961
Nondefense.....	14,620	14,234	14,356	13,338	15,556	14,440	38,414	38,332	38,034	38,050	38,242	38,367
Defense.....	2,533	2,551	2,578	2,426	2,708	2,604	7,047	6,874	6,637	6,939	6,748	6,594
	New orders						Unfilled orders					
All manufacturing industries, total..	108,379	111,702	111,693	103,611	117,795	111,066	182,006	183,125	182,301	182,207	181,495	180,563
Durable goods industries, total.....	55,552	58,556	59,176	53,262	63,571	58,899	173,727	174,834	174,047	173,644	173,019	172,024
Nondurable goods industries, total.....	52,827	53,146	52,517	50,349	54,224	52,167	8,279	8,291	8,254	8,563	8,476	8,539
Industry groups arranged by market categories:												
Home goods and apparel.....	8,848	8,549	8,588	8,393	9,004	8,202	3,628	3,498	3,507	3,892	3,522	3,462
Consumer staples.....	19,382	19,531	19,032	18,372	19,644	18,672						
Equipment and defense products, except automotive.....	14,525	15,957	15,948	14,297	17,616	15,068	104,713	105,309	104,032	104,225	103,777	102,237
Automotive equipment.....	10,765	11,542	11,074	10,181	12,731	11,790						
Construction materials, supplies, and intermediate products.....	9,468	9,683	9,564	9,510	10,770	10,112	18,186	18,253	18,235	18,290	18,270	18,172
Other materials and supplies and intermediate products ³	45,391	46,440	47,487	42,858	48,030	47,222	55,479	56,065	56,527	55,800	55,926	56,692
Supplementary series: ²												
Household durable goods industries.....	3,549	3,587	3,493	3,375	3,857	3,495	2,892	2,790	2,835	3,152	2,828	2,788
Capital goods industries.....	16,138	17,895	18,293	15,889	19,533	17,066	113,118	114,134	113,020	112,613	112,486	111,218
Nondefense.....	14,189	15,713	15,000	13,568	16,866	14,685	81,843	82,277	80,794	81,826	81,596	80,288
Defense.....	1,949	2,182	3,293	2,321	2,667	2,381	31,275	31,857	32,226	30,787	30,890	30,930

*During 1968 manufacturers in ordnance, communications, aircraft and aircraft parts, and shipbuilding industries began to provide aggregate figures on shipments, orders, and total inventories of work performed for the Department of Defense. The results of these reports are included in these new defense series. ^PPreliminary. ^TRevised. ¹Shipments and new orders adjusted for trading-day and calendar-month variations; unfilled orders and inventories as of end of month. ²The supplementary series are regroupings of the separate industry categories as follows:

Household durable goods industries - Household furniture; kitchen articles and pottery; cutlery, handtools, and hardware; household appliances; ophthalmic goods, watches, clocks, watchcases; and miscellaneous personal goods.
 Capital goods industries - The capital goods industries series is comparable to the previous Producers' Capital Goods and the Defense Products (old series) categories.
 Nondefense industries - Machinery, except electrical (excluding farm machinery and equipment and machine shops), electrical machinery (excluding household appliances and electronic components), railroad equipment and the nondefense portions of shipbuilding and military tank vehicles, communication equipment, aircraft, aircraft parts and ordnance.
 Defense products (new series) - Based on separate reports on defense work filed by large defense contractors in the following industries: ordnance, communications, complete aircraft, aircraft parts, and shipbuilding and military tank vehicles. The data are comparable to those published annually in the MA-175, Shipments of Defense-Oriented Industries, for the specified industries.

³The following data reflect revised March 1977; Equipment and defense products except automotive shipments; unadjusted 15605; Other materials and supplies, and intermediate products; shipments seasonally adjusted, 46847 and New orders seasonally adjusted 47602.

Table 3.--MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS MONTH-TO-MONTH AND LONG TERM PERCENT CHANGES

(Based on seasonally adjusted data)

Item and industry group	Month-to-month			Average monthly rates of change				Average, 1972-1976	
	June- July 1977	May- June 1977	April- May 1977	3 months			12 months July 1976- July 1977	Average rise	Average decline
				Apr.- July 1977	Jan.- Apr. 1977	Oct. 1976- Jan. 1977			
Shipments:									
All manufacturing industries.....	-1.3	+1.3	-0.2	-0.1	+2.0	+2.2	+0.9	+1.5	-1.1
Durable goods industries, total.....	-1.9	+1.9	-0.1	-0.0	+2.2	+3.0	+1.0	+1.8	-1.5
Nondurable goods industries, total.....	-0.5	+0.7	-0.3	-0.0	+1.7	+1.5	+0.8	+1.6	-1.1
Total inventories:									
All manufacturing industries.....	+0.5	+0.7	+1.1	+0.8	+0.7	+0.2	+0.6	+1.0	-0.4
New orders:									
All manufacturing industries.....	-3.0	+0.0	+0.1	-1.0	+2.0	+2.1	+0.8	+1.9	-1.7
Durable goods industries, total.....	-5.1	-1.0	+0.9	-1.7	+2.2	+2.9	+0.8	+3.1	-2.1
Nondurable goods industries, total.....	-0.6	+1.2	-0.7	-0.0	+1.7	+1.4	+0.9	+1.8	-1.1
Unfilled orders:									
Durable goods industries, total.....	-0.6	+0.5	+1.4	+0.4	+0.5	+0.9	+0.5	+1.6	-0.9

Table 4.--VALUE OF MANUFACTURERS' INVENTORIES, BY STAGE OF FABRICATION, BY INDUSTRY GROUP

(Millions of dollars)

Industry group	Seasonally adjusted			Without seasonal adjustment			Seasonally adjusted			Without seasonal adjustment		
	July 1977P	June 1977 ^r	May 1977	July 1977P	June 1977 ^r	May 1977	July 1977P	June 1977 ^r	May 1977	July 1977P	June 1977 ^r	May 1977
	Total						Materials and supplies					
All manufacturing industries, total..	174,772	173,818	172,629	173,115	173,022	173,087	63,698	64,131	63,683	63,037	63,458	62,976
Durable goods industries, total.....	111,058	110,421	109,154	110,199	110,229	109,925	37,199	37,289	36,615	36,932	36,888	36,221
Stone, clay, and glass products.....	4,343	4,251	4,258	4,389	4,318	4,355	1,514	1,513	1,493	1,521	1,509	1,498
Primary metals.....	17,756	17,645	17,584	17,633	17,645	17,615	8,338	8,287	8,267	8,280	8,309	8,157
Machinery (electrical and nonelectrical).	40,326	40,214	39,654	40,072	40,349	40,185	11,192	11,148	11,003	11,272	11,144	11,080
Transportation equipment.....	20,418	20,370	19,735	19,722	19,743	19,509	5,644	5,885	5,448	5,241	5,624	5,273
All other durable goods industries.....	28,215	27,941	27,923	28,383	28,174	28,261	11,192	10,456	10,404	10,618	10,302	10,213
Nondurable goods industries, total.....	63,714	63,397	63,475	62,918	62,793	63,162	26,499	26,842	27,068	26,106	26,570	26,755
Chemicals and allied products.....	13,595	13,306	13,152	13,521	13,228	13,115	5,348	5,362	5,349	5,381	5,332	5,303
Petroleum and coal products.....	5,712	5,546	5,467	5,730	5,529	5,444	1,907	1,900	1,921	1,934	1,973	1,972
Rubber and plastics products, n.e.c.....	4,154	4,104	4,087	4,117	4,115	4,111	1,498	1,484	1,483	1,493	1,494	1,493
All other nondurable goods industries....	40,253	40,441	40,769	39,550	39,921	40,492	17,746	18,096	18,315	17,298	17,771	17,987
	Work in process						Finished goods					
All manufacturing industries, total..	53,862	53,013	52,761	53,480	52,666	53,069	57,212	56,674	56,185	56,598	56,898	57,042
Durable goods industries, total.....	44,203	43,584	43,339	43,843	43,252	43,600	29,656	29,548	29,200	29,424	30,089	30,104
Stone, clay, and glass products.....	681	669	658	681	679	685	2,148	2,069	2,107	2,187	2,130	2,172
Primary metals.....	5,858	5,809	5,789	5,881	5,795	5,874	3,560	3,549	3,528	3,472	3,541	3,584
Machinery (electrical and nonelectrical).	17,240	17,231	17,079	17,046	17,163	17,184	11,894	11,835	11,572	11,754	12,042	11,921
Transportation equipment.....	12,043	11,692	11,758	11,842	11,417	11,687	2,731	2,793	2,529	2,639	2,702	2,549
All other durable goods industries.....	8,381	8,183	8,055	8,393	8,198	8,170	9,323	9,302	9,464	9,372	9,674	9,878
Nondurable goods industries, total.....	9,658	9,429	9,422	9,637	9,414	9,469	27,557	27,126	26,985	27,175	26,809	26,938
Chemicals and allied products.....	2,317	2,250	2,232	2,292	2,269	2,255	5,930	5,694	5,571	5,848	5,627	5,557
Petroleum and coal products.....	1,200	1,165	1,164	1,230	1,188	1,193	2,605	2,481	2,382	2,566	2,368	2,279
Rubber and plastics products, n.e.c.....	744	718	706	719	707	707	1,912	1,902	1,898	1,905	1,914	1,911
All other nondurable goods industries....	5,397	5,296	5,320	5,396	5,250	5,314	17,110	17,049	17,134	16,856	16,900	17,191

P Preliminary.

R Revised.

Table 5.--RATIO OF MANUFACTURERS' INVENTORIES TO SHIPMENTS AND UNFILLED ORDERS TO SHIPMENTS, BY INDUSTRY GROUP
(Based on seasonally adjusted data)

Industry group	Inventories - shipments ratio				Unfilled orders - shipments ratio ¹ (months' backlog)			
	July 1977 ^P	June 1977 ^R	May 1977	Apr. 1977	July 1977 ^P	June 1977 ^R	May 1977	Apr. 1977
All manufacturing industries, total.....	1.60	1.57	1.58	1.56	3.21	3.21	3.23	3.20
Durable goods industries, total.....	1.96	1.91	1.92	1.91	3.87	3.86	3.89	3.86
Stone, clay, and glass products.....	1.49	1.41	1.49	1.48	0.92	0.90	0.96	0.95
Primary metals.....	2.19	2.09	2.12	2.13	2.13	2.04	2.13	2.08
Fabricated metals.....	1.94	1.81	1.85	1.81	3.59	3.45	3.58	3.49
Machinery, except electrical.....	2.45	2.51	2.44	2.44	4.79	4.94	4.82	4.80
Electrical machinery.....	2.24	2.27	2.30	2.23	3.56	3.63	3.72	3.56
Transportation equipment.....	1.54	1.47	1.48	1.47	8.40	8.65	8.50	8.71
Instruments and related products.....	2.09	2.04	2.06	2.03	1.63	1.64	1.67	1.68
Nondurable goods industries, total.....	1.21	1.19	1.20	1.18	0.70	0.71	0.70	0.72
Food and kindred products.....	1.01	1.03	1.10	1.05	(X)	(X)	(X)	(X)
Tobacco products.....	5.42	5.17	5.05	4.88	(X)	(X)	(X)	(X)
Textile mill products.....	1.54	1.58	1.54	1.51	(NA)	(NA)	(NA)	(NA)
Paper and allied products.....	1.26	1.21	1.20	1.16	(NA)	(NA)	(NA)	(NA)
Chemicals and allied products.....	1.52	1.39	1.40	1.38	(X)	(X)	(X)	(X)
Petroleum and coal products.....	0.70	0.70	0.67	0.67	(X)	(X)	(X)	(X)
Rubber and plastics products, n.e.c.....	1.39	1.32	1.31	1.34	(X)	(X)	(X)	(X)

NA Not available. ^PPreliminary. ^RRevised. (X) Not applicable.

¹Excludes the following industries with no unfilled orders: Wood and lumber products; glass containers; metal cans, barrels and drums; motor vehicles assembly operations; foods and related products; tobacco; apparel and related products; chemicals; petroleum and coal products; and rubber and plastics products, n.e.c.

APPENDIX

The following is a description of the survey and definitions used. These are provided to clarify the meaning of the items involved and do not represent any revisions from those definitions previously employed.

DESCRIPTION OF SURVEY

The Manufacturers' Shipments, Inventories, and Orders survey provides monthly figures that are comparable to the annual totals published each year in the Annual Survey of Manufactures (ASM). The ASM is based on a sample of approximately 60,000 manufacturing establishments drawn from the 5-year census universe of about 310,000 establishments. In the ASM, each manufacturing establishment provides data on employment, payrolls, shipments, cost of materials, capital expenditures, and inventories as well as other selected items. The establishments do not provide information on unfilled orders or new orders. Since the ASM is establishment based, it provides data for each of the 425 manufacturing industries in the Standard Industrial Classification System (SIC) and area data for industry groups.

The monthly survey M3-1 does not provide information at the complete SIC industry detail because of the smaller size of the reporting panel and the fact that most companies cannot provide shipments, inventories, and orders data monthly for individual establishments.

The monthly reporting panel consists of approximately 5,000 reporting units and includes virtually all companies with 1,000 or more employees and a sample of the smaller ones. The reporting unit typically comprises the entire operations of a company although many of the larger diversified companies file separate divisional type reports for their operations in different industries.

Most of the reporting units include mixed industry activity even within the broad industry categories of the monthly survey. The survey methodology assumes that the month-to-month changes of the reporting units classified in each industry category represent effectively the month-to-month movements of the establishments in the SIC industries which make up the category. Thus, the monthly reports are used to update the ASM estimates by using a link relative of matched companies in each industry.

EXPLANATION OF TERMS

Value of Shipments—Shipments in the monthly survey are equivalent to value of shipments as reported in the ASM which are received or receivable net selling values, f.o.b. plant, after discounts and allowances and excluding freight charges and excise taxes. Included in shipments are the value of all products sold, transferred to other plants of the same company, or shipped on consignment.

Shipments also include receipts of establishments in the industry for contract work performed for others, resales, receipts for miscellaneous activities such as the sale of scrap and refuse; value of installation and repair work performed by employees of the plant; and value of research and development performed at the plant. In the aircraft industry and ship-

building, the value of work done in a given year varies considerably from the value of shipments because of the long lead time between the input of the materials and labor and the shipments of the completed aircraft or ship. In the annual survey, therefore, the value of work done during the year is requested rather than the value of shipments.

The value of shipments figures developed from the ASM contain duplication at the all manufacturing and industry group levels since the products of some industries are used as materials by other industries within the industry group. With the exception of motor vehicles, it is not significant at the 4-digit SIC group level. Since the M3-1 industry categories typically are groupings of industries, this duplication is significant for the all manufacturing, durable goods and nondurable goods categories and the various market groups. The significance of the duplication within the specific M3-1 industry groups varies depending on the 4-digit industry composition of these groups. It is most pronounced in a few highly integrated industry areas such as primary metals and motor vehicles and parts.

Since most monthly reports are for the entire company or major divisions rather than establishments, the companies are requested to report net sales, i.e., total company billings after discounts and allowances. Companies which file divisional reports are requested to treat transfers from one division of the company to another as if they were net sales to outside customers. Although this definition of shipments in the monthly reports differs from that used in the annual establishment reports, it is assumed that the month-to-month changes in company sales in the industry are representative of the month-to-month shipments of the establishments in the industry.

Inventories—End-of-month inventories in the monthly survey are identical in definition to the end-of-year inventories in the ASM. In the ASM, respondents are asked to report inventories of individual establishments at approximate current cost if feasible; otherwise, "at book values." Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the aggregate inventories for establishments in an industry is not precise. The figures on the change in inventories from one period to the next are of greater significance than the actual aggregates.

Inventories are reported by stage of fabrication: (a) finished goods; (b) work in process; and (c) materials, supplies, fuel, and other inventories. In using inventories by stage of fabrication at the all manufacturing and 2-digit industry levels as well as for the durable and nondurable goods sectors, it should be noted that a finished product of one industry may be a raw material for another industry at the next stage of fabrication. Insofar as the durable and nondurable goods sectors and also the 2-digit industry groups contain industries with successive stages of processing, the same type of commodity may be included under different inventory categories in the aggregate statistics.

New Orders Received and Unfilled Orders—Orders as reported in the monthly survey are net of cancellations during the month. They include orders received during the period and also filled during the period as well as those orders received for future delivery. They also include the net sales value of contract

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change documents which increase or decrease the sales value of the unfilled orders to which they relate. Orders include only those supported by binding legal documents such as signed contracts, or letter contracts. In case of letter contracts the full amount of the sales value is included if the parties are in substantial agreement on the amount; otherwise, only the funds specifically authorized to be expended are included. The respondent is instructed to deduct the sales value of partial or complete cancellation of existing orders.

Unfilled orders include orders as defined above that have not yet passed through the sales account. Generally, unfilled orders at the end of the reporting period are equal to unfilled orders at

the beginning of the period plus net new orders received less net sales.

While both new orders and unfilled orders are used in reviewing individual company reports for consistency, only unfilled orders are estimated directly in the tabulated totals. New orders are derived from the shipments plus net change in unfilled orders for each industry category. This procedure is followed for seasonally adjusted data as well as for the unadjusted data. Shipments and unfilled orders are seasonally adjusted independently. Seasonally adjusted new orders are derived from seasonally adjusted shipments and seasonally adjusted unfilled orders.

